



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/500,583

06/29/2004

Jan Webjorn

P/4447-3 PCT

5248

2352 7590 02/25/2008
OSTROLENK FABER GERB & SOFFEN
1180 AVENUE OF THE AMERICAS
NEW YORK, NY 100368403

EXAMINER

AMIRI, NAHID

ART UNIT

PAPER NUMBER

3679

MAIL DATE

DELIVERY MODE

02/25/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Response to Amendment

In view of Applicant's Amendment received 13 November 2007, amendments to the claims have been entered. Claims 1-8 and 10-14 are pending.

Claim Objections

Claim 11 is objected to because of the following informalities:

Claim 9, line 9, "the flanged member" should be changed to --one of the flanged members--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 11-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11, there is no antecedent basis for "said first end surface", line 8.

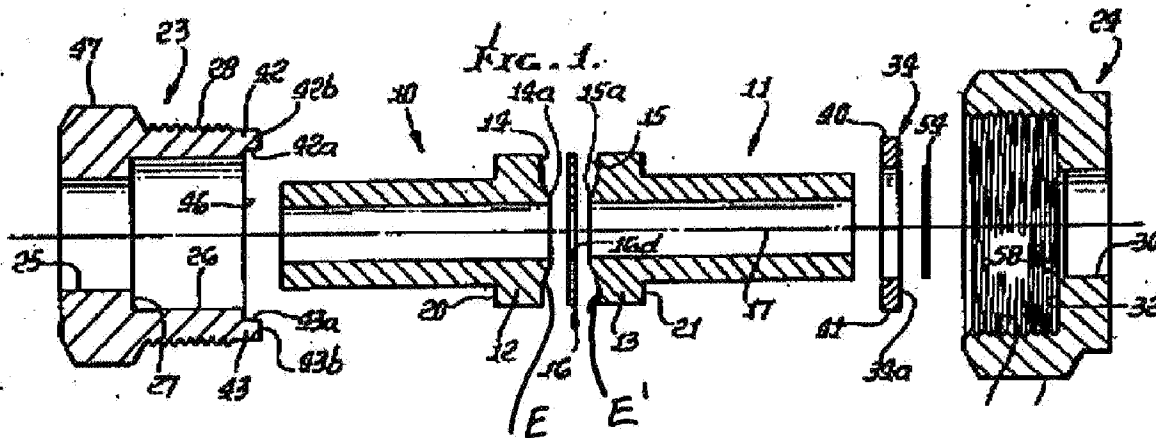
Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-5 and 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over
US Patent No. 5,040,714 McManigal.**

With respect to claim 1, McManigal discloses a flanged member (Fig. 1) to be included as a first flanged member (12) in a flanged joint; wherein the flanged member (12) comprising a first flanged end with a first end surface (E) inherently forming a load transferring surface through which forces are transferred when assembled together with a corresponding end surface of a flanged end (E') of a second flanged member (13) in the flanged joint, at least a portion of the first end surface (E) in unstressed condition being concave in a radial direction such that the at least a portion of the first end surface (E) is curved and defined by a concave curve function; and in an unstressed condition a proximal point on the at least the portion of the first end surface and a distal point of the at least the portion of the first end surface meet a plane inclined in the radial direction of the flanged member (12). McManigal does not disclose that the first end surface is concave in the radial direction over at least an area that is subjected to deformation when the flanged member is assembled together with the second flanged member. It is notoriously old, well-known and conventional that all materials deform when undergo some external force. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to provide the flange member of McManigal with some deformation when the flange member undergo some external force in order to close the gap between the flange member and other member.



With respect to claim 2, McManigal discloses (Fig. 1) that the first end surface is concave over the entire extension thereof in the radial direction.

With respect to claim 3, McManigal discloses (Fig. 1) that the first end surface (E) is concave in the radial direction over at least an area that will be subjected to deforming forces during use.

With respect to claim 4, McManigal discloses (Fig. 1) that the first end surface (E) is concave over essentially a contact surface against the corresponding end surface (E') of the second flanged member (13).

With respect to claims 5 and 14, McManigal discloses (Fig. 1) that the first end surface (E) comprises varying concave surface in the radial direction; and wherein the concave surface (E) has more than one radii of curvature.

With respect to claim 10, McManigal discloses (Fig. 1) that at least a part of a transition area, between the surface of the flange directed away from the end surface and a part of the flanged member that is substantially parallel to a longitudinal axis of the member, is shaped as a substantially elliptical area.

With respect to claim 11, McManigal discloses a Joint (Fig. 1) comprising two flanged members (12, 13); the two flanged members (12, 13) each comprising at least one flanged end having an end surface (E) forming a load transferring surface through which forces are

transferred when connecting together the two flanged members (12, 13) in an assembled state such that the end surfaces face each other, wherein for at least one of the two flanged members (12, 13), at least one portion of the end surface (E) in an unstressed condition is concave in a radial direction such that the at least the portion of the end surface is defined by a concave curve function, and a proximal point on the at least the portion of the first end surface (E) and a distal point of the at least the portion of the first end surface meeting a plane inclined in the radial direction of the flange member (12). McManigal does not disclose that the first end surface is concave in the radial direction over at least an area that is subjected to deformation when the flanged member is assembled together with the second flanged member. It is notoriously old, well-known and conventional that all materials deform when undergo some external force. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to provide the flange member of McManigal with some deformation when the flange member undergo some external force in order to close the gap between the flange member and other member.

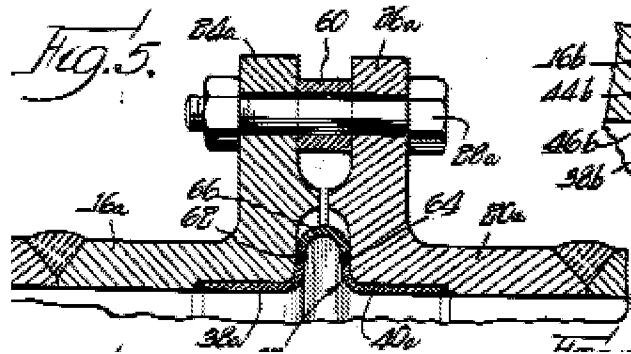
With respect to claim 12, McManigal discloses (Fig. 1) both of the flanged members (12, 13) have a concave end surface.

With respect to claim 13, McManigal discloses (Fig. 1) the end surfaces (30, 16) facing each other before assembly are inclined in the radial direction outwards to form an angle in radial cross-section, the angle being such that a distance between the two end surfaces (E, E') increase in radial direction outwards, and at least one of the inclined end surface being slightly concave; and wherein the concave surface has more than one radii of curvature.

Claims 1-7 and 11-14 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 2,739,828 Schindler et al.

With respect to claim 1, Schindler et al. disclose a flanged member (Fig. 3) to be included as a first flanged member (24a) in a flanged joint; wherein the flanged member (24a) comprising a first flanged end with a first end surface (F) configured to be assembled together with a corresponding end surface of a flanged end (F') of a second flanged member (26a) in the flanged joint, at least a portion of the first end surface (F) in unstressed condition being concave in a

radial direction such that the at least a portion of the first end surface (F) is curved and defined by a concave curve function; and wherein in an unstressed condition a proximal point on the at least the portion of the first end surface and a distal point of the at least the portion of the first end surface meet a plane inclined in the radial direction of the flanged member (24a).



With respect to claim 2, Schindler et al. disclose (Fig. 5) that the first end surface (F) is concave over the entire extension thereof in the radial direction.

With respect to claim 3, Schindler et al. disclose (Fig. 5) that the first end surface (F) is concave in the radial direction over at least an area that will be subjected to deforming forces when the flanged member (24a) is assembled together with another flanged member (26a).

With respect to claim 4, Schindler et al. disclose (Fig. 5) that the first end surface (E) is concave over essentially a contact surface against the corresponding end surface (E') of the second flanged member (13).

With respect to claims 5 and 14, Schindler et al. disclose (Fig. 5) that the first end surface (E) comprises varyingly concave surface in the radial direction; and wherein the concave surface (E) has more than one radii of curvature.

With respect to claim 6, Schindler et al. disclose (Fig. 5) that the flange member further comprising an internal through axial opening (A), the first end surfaces (F) having an innermost abutment point against the corresponding end surface (F') of the second flanged member (26a),

which abutment point is situated farthest in the radial direction at the opening (A), the concavity of the first end surface (F) extending all the way in to the abutment point.

With respect to claim 7, Schindler et al. disclose (Fig. 5) that the first end surface (F) has an innermost abutment point against the corresponding end surface (F') of the second flanged member (24a), an internal through axial opening (A') of the second flanged member (26a), the innermost abutment point being situated nearest in the radial direction to the opening (A), and the concavity of the first end surface (F) extending all the way in to the abutment point.

With respect to claim 11, Schindler et al. disclose (Fig. 5) comprising two flanged members (24a, 26a); the two flanged members (24a, 26a) each comprising at least one flanged end having an end surface (F) connecting together the two flanged members (24a, 26a) in an assembled state such that the end surfaces face each other, wherein at least one portion of the end surface in an unstressed condition is concave in a radial direction such that the at least the portion of the end surface is defined by a concave curve function, one of the end surfaces (F) is concave in the radial direction over at least an area that is subjected to deformation when one of the flanged members (12) is assembled together with said second flanged member (13), a proximal point on the at least the portion of the first end surface (F) and a distal point of the at least the portion of the first end surface (F) meeting a plane inclined in the radial direction of the flange member (24a).

With respect to claim 12, Schindler et al. disclose (Fig. 5) both of the flanged members (24a, 26a) have a concave end surface.

With respect to claim 13, Schindler et al. disclose (Fig. 5) the end surfaces (F, F') facing each other before assembly are inclined in the radial direction outwards to form an angle in radial cross-section, the angle being such that a distance between the two end surfaces (F, F') increase in radial direction outwards, and at least one of the inclined end surface being slightly concave; and wherein the concave surface has more than one radii of curvature.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over McManigal.

With respect to claim 8, McManigal discloses the claimed invention except for the conceived straight X that connects an innermost point of the first end surface in the radial direction, with an outermost point b thereof, in the radial direction, has a length Lx and the concavity of the end surface has a maximum depth Dk in relation to a conceived plane surface produced by said line X, which depth Dk is of the order of 0.01%-2% of Lx. It would have been an obvious matter of design choice to construct the concavity of end surface with Applicant's specific dimension since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

Response to Arguments

Applicant's arguments filed November 13, 2007 have been fully considered but they are not persuasive.

With respect to applicant's remarks, it should be noted that claim 1 merely sets forth a single flange member. Further, it is well-settled that it is the patentability of the device, itself, that is to be determined in a "device" claim and not how such device is intended to be used. The discovery of a new use, function or property for an otherwise old product structure does not cause a claim drawn to such product and new use/function/property to be patentable. Finally, all that is necessary for anticipation to exist is for the language of the claim(s) to "read on"

something in the prior art. No structural distinction is seen to be present between instant claim 1 and the flanged member 12 of McManigal. The same applies to claim 11 which purportedly is drawn to a "joint" but only defines two flanged members (one structurally) with no recitations connecting structure. Further in regard to claim 11, it should be noted that reliance on the specification for limitations otherwise not in the claims is ineffective.

With respect to applicant's remarks concerning Schindler et al, the above response applies. Further, it is applicant's burden to establish that functional features being relied upon for patentability are not inherently present in the prior art.

Finally, with respect to the claims, applicant should note that the language of the claims merely sets forth any portion, small or large, of the first end surface to be concave. This language is of such breadth that it encompasses the prior art structures of McManigal and Schindler et al. There is no requirement for the entire or substantially the entire end surface to be concave nor are there any limitations setting forth the disclosed bolted connection that has the endmost portions of the flanges in contact with one another (the importance of which is described on pages 4-5 of the specification).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nahid Amiri whose telephone number is (571) 272-8113. The examiner can normally be reached on 8:30-5:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571) 272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nahid Amiri
Examiner
Art Unit 3679
February 10, 2008

/Daniel P. Stodola/
Supervisory Patent Examiner, Art Unit 3679